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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,991	07/11/2003	Jan Krason	127698-1000	4247

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Gardere Wynne Sewell LLP  
Suite 3400  
1000 Louisiana  
Houston, TX 77002-5007

EXAMINER
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WRIGHT, ANDREW D

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/617,991	<b>Applicant(s)</b> KRASON ET AL.	
	<b>Examiner</b> Andrew Wright	<b>Art Unit</b> 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/11/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because it is more than one paragraph. Correction is required. See MPEP § 608.01(b). Applicant is reminded of the proper language and format for an abstract of the disclosure:

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites "connection means for connecting the tanks to sources for receiving and dispensing the gas." The use of "means for" presumptively invokes 35 USC 112 6<sup>th</sup> paragraph. The specification does not specify what corresponding structure (or material or act) performs this specific function. Since the specific structure (or material or act) cannot be determined, then the equivalents thereof cannot be determined. Therefore the applicant has failed particularly point out and distinctly claim the invention as required by 35 USC 112 2<sup>nd</sup> paragraph. Claims 2-5 are rejected because they depend from claim 1.

5. Claim 6 recites "connection means for connecting the tanks to sources for receiving and dispensing the gas." Claim 6 is indefinite for the same reason as claim 1 described above. Claims 7-10 are rejected because they depend from claim 6.

6. Claim 13 recites "means for putting...", "means for connecting...", "means for introducing...", "means for disconnecting...", and "means for connecting...". Claim 14 recites "means for graining...", "means for modifying...", "means for dehumidifying...", and "means for sieving...". Claims 13 and 14 are indefinite for the same reason as claims 1 and 6 described above.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engel et al. (US 4,523,548) in view of Zalejski (US 3,320,918). Regarding claims 1 and 6, Engel shows a car with tanks (214, 224). The tanks carry compressed gas. A zeolite material is in each of the tanks (column 10, lines 46-64). The zeolite material is adapted for adsorption and desorption of the gas. Plumbing lines and valves are the connecting means. The manifold (244) is the source for receiving and dispensing the gas. Engel does not teach that the tanks are aboard a ship. It is well known and common for cars to be loaded upon ships for the purpose of ferrying the cars. Zalejski shows a ferry boat that carries cars. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the Engel car on a ferry as taught by Zalejski. The motivation would be to ferry the car from one location to another. The Engle car on a boat contains all of the limitations of claims 1 and 6.

9. Regarding claims 2 and 7, neither the claims nor the specification of the instant application give any context to the terms "appropriately" and "high". Engel teaches that the zeolite can be granulated particles. Therefore it is grained. The zeolite will necessarily have some degree of porosity and cation exchange.

10. Regarding claims 3 and 8, the zeolite will necessarily be either modified or unmodified.

11. Regarding claims 4 and 9, Engel teaches that the zeolite may comprise clinoptilolite (see the last entry of the table in column 11).

12. Regarding claims 5 and 10, Engel teaches that the gas is natural gas (column 5, line 66).

13. Regarding claim 11, the modified invention of Engel in view of Zalejski constitutes a method for transporting natural gas aboard a ship. The natural gas is in the car. The car is transported on the ship. Therefore, the natural gas is transported upon the ship. The step of providing the tanks is inherent in driving the car onto the ship. The step of putting the zeolite in the tanks is inherent in the constructing the car with tanks (214) with zeolite material therein. The car must be periodically supplied with natural gas to use as fuel. Therefore, the tanks are periodically refilled with natural gas. The steps of connecting gas delivery tubes to the tanks, introducing gas into the tanks, and disconnecting the gas delivery tubes are inherent in the normal re-filling of the tanks. The step of allowing the ship to embark to its destination is inherent in the ferry function of the ship. The step of connecting delivery tubes to the tanks and discharging gas from the tanks is inherent in driving the car off the ferry when it reaches its destination. The opening of the manifold to allow the gas to flow from the tank to the engine is the step of connecting gas delivery tubes. Gas is then discharged from the tanks when the engine is run and the gas used for fuel. It is noted that the claimed method steps are not exclusive and are not recited as order-specific. Therefore, the making of the Engle car and the subsequent use on a ferry boat comprise the recited method steps.

14. Regarding claim 12, Engle discloses graining, modifying, dehumidifying, and sieving the zeolite material before it is put into the tanks (columns 10-11).

**Conclusion**

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nowobilski et al. shows a natural gas storage system in a car where the storage system comprises tanks with zeolite material. Stenning et al. shows a ship based system for natural gas transport.

16. Any inquiry concerning this communication should be directed to examiner Andrew D. Wright at telephone number (703) 308-6841. The examiner can normally be reached Monday-Friday from 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano, can be reached at (703) 308-0230. The fax number for official communications is 703-872-9306. The fax number directly to the examiner for unofficial communications is 703-746-3548.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist at (703) 308-1113.

Andrew D. Wright  
Patent Examiner  
Art Unit 3617

 4/22/04